



Kale
The inside out
guide





### Kale: The inside out guide



You've probably heard the saying 'you are what you eat' but what you might not realise is that this holds true both for inside and outside your body.

Moisturisers, serums and sunscreen can help to keep your skin looking good and youthful on the outside but your skin, hair and eyes also need to be nourished from within and to do that, you need to ensure your diet contains key vitamins, minerals and antioxidants.

The organs that you can't see like your heart, bones and nervous system also need the right balance of nutrients to keep them healthy and in tip-top condition.

Although the term superfood is now falling out of fashion because it's been overused and abused, some foods like kale really do pack a real punch in terms of the nutrition they offer. Whether you want to call them a superfood or nutrient dense, they can help keep your body looking good on the outside and healthy on the inside.





### 4 nutrients in kale which help you look good and feel great

#### **Vitamin C**

An antioxidant which can help neutralise free radicals which accelerate ageing and wrinkling of the skin. Vitamin C is also essential for the manufacture of collagen and structural protein which support that skin and keep it firm. A study published in the American Journal of Clinical Nutrition, which examined the skin of 4,025 women, found that women who had the highest intake of vitamin C had less wrinkles and younger looking skin than those who had low intake of the nutrient.

Nutritional info: 110mg per 100g raw | 57mg per 80g portion (cooked)



#### Vitamin A

The phytochemical Beta-carotene can be converted into vitamin A in the body which is important for healthy skin and eyes. A lack of vitamin A in the diet can cause the skin to become rough and dry. Research carried out by the University of Nottingham showed that eating vegetables rich in carotenoids can help to give the skin a healthy golden glow which can make it look healthier and attractive.

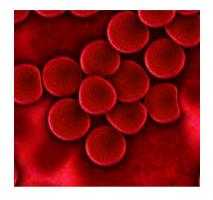
Nutritional info:

525mcg per 100g raw | 448mcg per 80g portion (cooked)









#### **Folate & Iron**

The B vitamin - folate and the mineral - iron are both essential for the manufacture of red blood cells which carry oxygen and nutrients around the body. Red blood cells typically live for around 120 days then then die and need to be replaced by new ones so your body needs a regular supply of these nutrients. Lack of iron and folate in the diet can cause anaemia which can cause lethargy and lack of energy.

Folate nutritional info:

120mcg per 100g raw | 69mcg per 80g portion (cooked)

Iron nutritional info:

1.7mg per 100g raw | 1.6mg per 80g portion (cooked)



## 4 nutrients in kale which benefit you on the inside



#### **Vitamin K**

Vitamin K helps to keep the bones healthy and is important for wound healing. Studies show that low levels of vitamin K in the blood are linked with low bone density and increased risk of osteoporosis. One study published in the American Journal of Clinical Nutrition revealed that women who ate at least 110mcg of vitamin K a day were 30% less likely

to break a hip compared with those who ate less.

Nutritional info: 623mcg per 100g raw

#### **Calcium**

In addition to being a vital nutrient for strong healthy bones, calcium helps to regulate our heart beat and allow muscles to contract.

Nutritional info: 130mg per 100g raw | 120mg per 80g portion (cooked)

#### **Potassium**

Potassium is necessary for the correct functioning of the heart muscle and helps to keep the heart beating with a healthy rhythm. Potassium also helps to control blood pressure and can reduce the risk of high blood pressure by balancing out the negative effects of too much salt.

Nutritional info: 450mg per 100g raw | 128mg per 80g portion (cooked)







#### Lutein



Kale contains a phytochemical called Lutein which research from the Department of Dermatology at the University of Naples shows can help protect the skin and eyes from damage from sunlight by boosting the skin's natural antioxidant capacity. Studies show that people who have a good intake of Lutein have a reduced risk of age related Macular degeneration which is the most frequent cause of loss of vision in the UK

Nutritional info: 7.6mg per 100g (cooked)







# Other nutrients which help you stay healthy inside and out:



**Protein** – found in foods like lean meat, poultry, milk and yogurt, nuts and seeds, beans and pulses – help to build and repair muscle. As we get older we start to lose muscle mass (a condition called scaropenia) so making sure your diet contains enough protein can slow this loss.

Try our Chicken, Kale and Ginger Stir Fry

**Friendly bacteria** - found in foods like yogurt and fermented foods like kefir, sauerkraut and kimchi, help boost levels of friendly bacteria in the gut and help to keep your digestive system healthy.

Try our Pineapple, Kale and Apple Detox Smoothie

**Prebiotics** – foods like leeks, chicory, bananas and asparagus contain a special type of fibre called Fructo-oligosaccharides which encourage the growth of friendly bacteria in the gut.

Try our Slow Roasted Pork with Leeks and Braised Kale





**Omega-3 fats** – found in oil rich fish like salmon and mackerel helps to keep the heart and brain healthy and improves skin elasticity helping it to stay supple. Try our Roasted Cod on Cavolo Nero

**Smart carbs** – found in wholegrain cereals, like wholemeal bread and oats and unrefined fibre rich foods like beans and pulses help to keep the digestive system in good working order.

Try our <u>Lentil and Kale Soup</u>

Of course what you eat is only one piece of the looking-good-feeling-great jigsaw – in addition to eating well, you need to make sure you:

- Get enough sleep
- Take regular exercise
- Keep your body well hydrated
- Find time to relax, destress and do the things you enjoy









#### To find out more about kale

or get some inspiration on how to cook it and what recipes you can create,

log on to www.discoverkale.co.uk

or check out Discover Kale on Facebook (facebook.com/DiscoverKale) or twitter (@DiscoverKale)

#### References

#### **Vitamin C**

http://ajcn.nutrition.org/content/86/4/1225.full.pdf

#### Carotenoids and skin tone

https://www.nottingham.ac.uk/news/pressreleases/2011/january/lookinggoodongreens.aspx

#### **Vitamin K and bones**

http://www.hsph.harvard.edu/nutritionsource/vitamin-k/

Feskanich D, Weber P, Willett WC, Rockett H, Booth SL, Colditz GA. Vitamin K intake and hip fractures in women: a prospective study. Am J Clin Nutr. 1999: 69:74–9.

#### Potassium and blood pressure

http://www.bloodpressureuk.org/microsites/salt/ Home/Whypotassiumhelps

#### Lutein

http://www.ncbi.nlm.nih.gov/pubmed/15538079

http://www.aoa.org/patients-and-public/caring-for-your-vision/diet-and-nutrition/lutein?sso=y